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#### **NAVY MEDICINE**

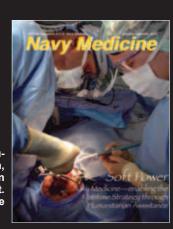
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#### NAVY MEDICINE

Official Magaine of U.S. Navy Medicine Volume 101, No. 1, January-February 2010

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#### Online at: www.med.navy.mil

NAVY MEDICINE is the professional magazine of the Navy Medical Department community. Its purpose is to educate its readers on Navy Medicine missions and programs. This magazine will also draw upon the medical department's rich historical legacy to instill a sense of pride and professionalism among the Navy Medical Department community and to enhance reader awareness of the increasing relevance of Navy Medicine in and for our nation's defense.

Contributions and Feedback Welcome Send articles, photographs (min 300 dpi electronic), and feedback to: Managing Editor, NAVY MEDI-CINE Magazine, Bureau of Medicine and Surgery, Rm 1219, Communications Directorate, 2300 E Street, N.W., Washington, DC 20372-5300, E-Mail: janice.hores@med.navy.mil or 19native47@verizon.net

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Dear Readers:

As NAVY MEDICINE begins 2010 I wanted to let you know that you will be seeing many, many changes in the magazine.

NAVY MEDICINE has now become one of the Public Affair's family of publications.

I would like to take this opportunity in asking you to join me in welcoming aboard Cmdr. J.A. "Cappy" Surette, APR, USN, as Public Affairs Officer-incharge of the newly defined and redesigned magazine.

I will remain your devoted Managing Editor.

You will be seeing many changes both in format and content. Also as the new magazine emerges you will notice new as well as familiar names on the masthead in other editorial/contributing positions.

I'm asking each and every one of you to please take the time to email me at: janice.hores@med.navy.mil or write to me at: Janice Marie Hores, Managing Editor, Navy Medicine, BUMED, Rm. 1219, 2300 E St., NW, Washington, DC, 20372-5300.

I am most anxious to hear your thoughts and suggestions on content, layout, or any other comments you might have during the evolution of the new publication.

Thank you for your cooperation and continued support. I look forward to hearing from all of you.

Janice Marie Hores, Managing Editor

Lt. j.g. Kathleen Kostka kisses Ismar Gomez as she awakens from an anesthetic sleep for her cleft lip surgery. Ismar underwent a three hour surgery by Lt. Cmdr. Anand Kumar and Lt. Cmdr. Samira Meymand to fix a complete unilateral cleft lip aboard the hospital ship USNS Comfort (T-AH 20). U.S. Navy Photo courtesy of Capt. Walter M. Urban, Jr., USNR (Ret.)





## PATIENT AND FAMILY-CENTERED CARE: OUR CONCEPT OF CARE

is Patient and Family-Centered Care. It is at the epicenter of everything we do. This concept is elegant in its simplicity yet extraordinarily powerful. It identifies each patient as a participant in his or her own health care and recognizes the vital importance of the family, military culture, and the military chain of command in supporting our patients. My goal is for this concept of care, this commitment to our patients and their families, to resonate throughout our system and guide all our actions.

Many of you may be familiar with our graphic which depicts our concept of care as the "center of gravity" of this triangle. It is enabled by our primary mission to deliver force health protection and a fully ready force; and mutually supported by the force multipliers of world class research and development and medical education. It also leverages our emphasis on the health and wellness of our patients through an active focus on population health.

I also want to take the opportunity to share my perspectives on an initiative you will be hearing more about in the coming year: The Navy and Marine Corps Medicine Primary Care Model. Primary care is the gateway for providing this centered care to



our Navy Marine Corps team beneficiaries; it is the foundation of health and preventive care.

We know MTFs have increasingly been challenged in meeting the needs of patients in the primary care environment due to increased deployments and community staffing shortages. These shortages and turnover of personnel have diminished timely access to primary care. As a result, Navy Medicine is launching a standardized care delivery model to be implemented across the enterprise. This model will establish primary care teams based on clinical requirements reflecting a location's patient population. Clinical requirements will include ensuring readiness; improving prevention and wellness metrics; and chronic disease management.



The new model is focused on a patient and familycentered concept of care that emphasizes a collaborative, multi-disciplinary team approach. This model will forge a partnership between the clinical team, the patient, and when appropriate, the patient's family. Civilian and military health care systems have demonstrated improved quality of care, patient satisfaction, and access to care when medical practice is organized around a primary care model that focuses on the patient and family. A standardized primary care model will improve the care team's ability to comprehensively manage their patients.

This model will require innovation and new ways of thinking, working, and communicating for family medicine physicians, physician assistants, nurse practitioners, other providers, and staff members who will make up the primary care teams. Successful implementation will have to address many requirements including facility capabilities, personnel assignments, training requirements, and clear business rules. The road ahead will require strong commitment at all levels of our organization. This is a 2010 strategic priority for Navy

Medicine and we are prepared to support clinicians and our patients.

As we move forward in 2010, I want you to know that Navy Medicine is well-positioned for the future. We recognize that our world-wide operational demands and our commitment to provide care to our growing number of beneficiaries will continue to pose formidable challenges. But this is what we do and why so many of us chose a career in military medicine. It's also why we are guided by the Navy's Core Values, Honor, Courage, and Commitment in all we do.

Navy Medicine is a world-wide health care system comprised of compassionate and talented professionals who are willing to make contributions and personal sacrifices. This team, our team, includes officers, enlisted personnel, government civilian employees, contract workers, and volunteers working together in a vibrant health care community. We all have a vital role in the success of our enterprise. I want to thank all of you for the tremendous support this year. I am proud of you and grateful to have the opportunity to serve with you.

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## DSG Visit to NHB Highlighted with Primary Care Model Discussion

Rear Adm. Thomas R. Cullison,
Deputy Surgeon General and Vice
Chief, Bureau of Medicine and Surgery
visited Naval Hospital Bremerton Jan.
6, 2010 to discuss the upcoming implementation of Navy Medicine's Primary
Care Model.

According to Cullison, the Primary Care Model is a 2010 strategic priority for Navy Medicine to consistently deliver patient and family-centered care by using a team-centered approach instead of assigning a primary care manager who very well might be preparing to deploy, or is still on deployment.

"We don't need to confuse any of our patients," Cullison stated. "We can't tell someone who their primary care manager is and then have that doctor go on deployment. That just adds unnecessary confusion for our patients. We want our patients to know that there is going to be staff there who knows them and that they have a place to go to where they can feel comfortable."

A major goal of the model is to improve the overall health of the patient population, while increasing the patients' satisfaction in access and health care delivery.

The way forward, attests Cullison, is as a team. Instead of sending a letter to a military family telling them who their primary care manager (PCM) is and then sending them another letter to inform them their PCM has changed, the goal is to just send one letter reminding every family that there is a war on, and then assigning them to a specific team

for their medical needs that meets at a specific place at the hospital.

"Everything is personal in health care," said Cullison. "We need to continue to take care of our patients at our hospitals and clinics, as well as get our personnel ready to deploy to war."

"Which dovetails into what our patients have been telling us," added

Capt. Mark E. Brouker, Naval Hospital Bremerton Commanding Officer. "The Primary Care Model is the right thing to do and we're heading in the right direction by improving our overall patient care and patient satisfaction by using it."

The Primary Care Model is intended to improve quality, satisfaction, and access to primary medical care, with



Deputy Surgeon General, Vice Chief, Bureau of Medicine and Surgery, Rear Adm. Thomas R. Cullison speaks to a capacity audience in Ross Auditorium at Naval Hospital Bremerton (NHB) during an admiral's call.

the overall goal to create integrated, inter-disciplinary, high-quality teams that enhance primary care in such areas as readiness, prevention, wellness, and disease management. "We're not going to suddenly switch over in the next five days," remarked Cullison. "We will start to roll out the model in each hospital by doing it well and doing it right."

It's not a simple process, but Navy Medicine is intent on making it so. Cullison related in his Admiral's Call that at a recent meeting with civilian counterparts, one attendee did not quite understand the concept of what it meant to have Navy personnel being deployed and how such a concept could impact a Navy hospital. It wasn't until he explained that when Navy doctors, nurses, hospital corpsmen, and support staff are sent to Iraq, Afghanistan, the Horn of Africa or elsewhere, that means they come directly from the staff of the hospital or clinic they are currently assigned. A command like Naval Hospital Bremerton routinely has anywhere from 6 to 8 percent of active duty personnel deployed and has reached as high as 16 percent. "So imagine taking that many employees from a civilian hospital's

Intensive Care Unit, Operating Room, Mental Health Clinic, and Family Medicine Department and still have to conduct business as usual," said Cullison. "We still have to provide the same level of high care, and we do. But we can work to make it better. Primary care is central to everything we do in Navy Medicine and our ability to do it well determines, in large part, our success in many areas such as our ability to provide quality Family and Patient Centered Care, sustain our Graduate Medical Education programs, improve the health of our patients, improve the readiness of our active duty, and meet the needs of those who depend on us every day for their health and well-being."

Cullison's visit was not just to present the primary care model concept to those in attendance at the several Admiral's Calls, but also to get feedback, input and answer questions. "I'm all for it and look forward to working in such an environment," said Capt. Barth Merrill, NHB Director for Medical Services.

Also attending the meeting were Capt. Patrick Kelly, Chief of Staff, Navy Medicine West, and Capt. James A. Thralls, Commanding Officer, Naval Hospital Oak Harbor (NHOH), and members of his staff.

Before visiting NHB, Cullison met with Rear Adm. Christine M. Bruzek-Kohler, Commander, Navy Medicine West and Naval Medical Center San Diego. This model was also briefed to the leadership at Navy Medical Center San Diego, Naval Hospital Camp Pendleton and Naval Hospital 29 Palms.

J.S. Navy Photo By Douglas H. Stutz, NHB Publ

By Douglas H. Stutz, Naval Hospital Bremerton Public Affairs Officer

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## Surgeon General Discusses Humanitarian Assistance in Botswana

By Cmdr. J.A. "Cappy" Surette, APR

nternational government officials, military officers, and health industry leaders gathered at the University of Botswana Dec. 7-10 for a first of its kind Medical Ethics Conference hosted in the country and developed in partnership with the U.S. Navy.

The goal of the conference was to bring together practitioners from Botswana with experts in health care, medicine, and research from around the world to discuss integrity and ethical issues related to these professions.

"Medical science has led to advancements in knowledge and improvements in health and human life, yet each day, practitioners in the areas of health care, medicine, and research confront difficult questions that need responses as they seek to conduct themselves in ways that are expected by society," said Prof. Bojosi Otlhogile, University Vice Chancellor. "I have no doubt that this conference will add to the overall quality of life of Botswana and Southern Africa.

Botswana, a sparsely populated, semi-arid country about the size of Texas, became independent in 1966 and is a model for how an African nation can utilize its natural resources for the benefit of its citizens. The country is a partner in the fight against HIV/AIDS on the African

continent but acknowledges that more must be done to overcome the epidemic. Botswana's leaders also continue to look for innovative ways to face the threats of malaria, cholera, tuberculosis, and various other infectious diseases.

South African Anglican Archbishop Desmond Tutu opened the conference with a presentation about human illness and the fragility of life where he acknowledged the tremendous global health care challenges facing practitioners but reminded all present not to forget that sick people are human beings above all else.

"We must remember that people are more than a physical body or a biological machine," said Tutu. "We must remember that the people in front of you seeking [medical] care are complex individuals with a bundle of emotions."

Vice Adm. Adam Robinson provided a keynote address and discussed the critical need for establishing global partnerships to meet common challenges.

"In this uncertain world, the United States and other nations have continued to forge greater bonds of trust and cooperation with people and countries around the world to contribute to the common good," said Robinson. "It is a common good symbolized by this Medical Conven-

tion, a first of its kind here in Botswana, a truly remarkable gathering of government officials, military officers, and industry leaders to discuss health care issues that we all must meet head on."

Robinson discussed the concept of humanitarian assistance and how by helping those in need around the world, the United States not only helps bolster stability but also works to create conditions of hope, which are the foundations of healthy societies.

"Navy Medicine, along with the rest of the U.S. Department of Defense, realizes that the promotion of world peace is dependent upon establishing the conditions of security and stability," said Robinson. "Where there is security and stability, we also find hope."

According to Dr. Edward Gabriele, Special Assistant to the Navy Surgeon General for Ethics & Professional Integrity, the conference focused on areas of medicine, health care, and scientific research that are key in the reduction of human suffering by eradicating diseases. Gabriele originated and developed the concept, and then directed the event over a 2-year period in partnership with the University of Botswana. "It was a stunning success," Gabriele said. "This event brought together people who care about Navy Medicine's hu-

manitarian assistance mission and our dedication to health care education internationally."

In addition, the conference addressed the role of science and diplomacy and discussed opportunities to integrate ethics and integrity into institutional and national policies and programs.

"This conference will go a long way to bolstering our already strong relationship with the people of Botswana," said U.S. Ambassador Stephen J. Nolan. "It was significant for the University of Botswana to host such a major gathering that brought together so many leading practitioners and thinkers about ethics in health, medicine, and research. The conference put the University on the map and also highlighted the important role played by U.S. Navy Medicine."

The presentations by international health care leaders were complemented by panel discussions, an educational technology exposition and poster presentations, which ran throughout the duration of the conference. After the conference, delegates had the opportunity to visit some facilities in Gaborone including Botswana Baylor Children's Clinical Centre of Excellence, Princess Marina SOS Children's Home and Happy Home.



▲South African Anglican Archbishop Desmond Tutu discusses health care challenges with Vice Adm. Adam Robinson, Navy Surgeon General, during a Medical Ethics Conference hosted by the University of Botswana in partnership with the U.S Navy.

▼Vice Adm. Adam Robinson, Navy Surgeon General, provides a keynote address at a Medical Ethics Conference hosted by the University of Botswana in partnership with the U.S Navy Dec 7. Robinson discussed the humanitarian assistance mission of the U.S. Navy and the critical need for establishing global partnerships to meet common challenges.



◀A statue of a man donating a bull to the University of Botswana in Gabarone, Botswana, stands in the main courtyard of the campus. The statue represents the generous donations of the citizens of the Southern African nation that enabled the construction of the University, which was established in 1982.



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# CONTINUING PROMSE

SNS Comfort (T-AH 20), sailing under the leadership of the U.S. Fourth Fleet, is a strong and vibrant symbol of our partnerships in the Americas. With a joint, international, interagency, and humanitarian volunteer crew, she is a very human face of compassion and engagement throughout the region." Adm. James Stavridis, Commander, U.S. Southern Command (USSOUTHCOM April 2009).

#### Mission Overview

On Apr. 1, 2009 Comfort departed Norfolk, Va., on a 4-month humanitarian and civic assistance mission to demonstrate the U.S.'s continued commitment to Central and Latin America and the Caribbean. Continuing Promise 2009 (CP '09) is the fourth humanitarian focused naval deployment to the region in the past three years designed to promote partnerships and goodwill. It is a genuine outreach to our southern neighbors to work together as partners in a collaborative effort to find solutions to common challenges. By working hand-in-hand with the Central and Latin American and Caribbean nations, the U.S. maintains a vital link that is essential to promoting democratic development and prosperity. The humanitarian aid mission is considered key to USSOUTHCOM's Strategic Communications Plan, and

is a critical component of our Navy's Maritime Strategy.

CP '09 is a global partnership consisting of U.S. and international military medical personnel, government agencies, regional health ministries, non-governmental organizations (NGOs), and U.S. academic institutions. During the 4-month mission, 60-70 international medical military and civilians from Netherlands, Canada, France, and Brazil plus representatives from each of the 7 host nations provided medical, logistics, and government support. It was truly an international team effort.

The USSOUTHCOM and U.S. 4th Fleet (NAVSO/4th Fleet) are the main planning and coordination elements for Continuing Promise. Capt. Miguel A. Cubano, MC, Command Surgeon, USSOUTHCOM provided this perspective. "When we leave, what do we leave behind? We help

stabilize the region which, in turn, provides an element of security to our own country." He also commented on the monetary cost of CP '09. "Humanitarian and civic assistance (HCA) provided \$24 million to fund CP '09. But in the future, establishing medical clinics may provide the people with greater access to medical care...certainly more sustainable."

Seven months prior to deploying, Pre Deployment Site Survey (PDSS) teams from USSOUTHCOM and Comfort met with the Ministry of Health of each host nation to determine how and where to allocate the medical resources during Comfort's port visits. Partnering with local health care providers and community officials to provide free medical care to communities with limited access to medical treatment was a primary goal.

Comfort would devote 10-12 days in each of the port cities beginning with Port Au Prince, Haiti; Santo Domingo, Dominican Republic; St. John's, Antigua; Colon, Panama; Tumaco, Colombia; La Union, El Salvador and Corinto, Nicaragua. It was Comfort's second mission to Central America since 2007.

## PARTINIEIRSIEUP of the Americas

By Capt. Walter M. Urban, Jr., USNR (Ret.)

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#### **COMMAND ELEMENT**

The Mission Commander for the first five countries visited was Capt. Robert G. Lineberry, Jr., USN, who previously commanded Amphibious Squadron SIX (CPR-6). Following the port visit to Columbia, Capt. Thomas M. Negus, USN, relieved Capt. Lineberry. With respect to the significance of the mission, Capt. Negus commented, "When Comfort departed Norfolk on 1 April, she was arguably the most powerful ship at sea in terms of her diversity and ability to provide humanitarian aid at an unprecedented level." Indeed, in the span of 4-months, the medical teams and support personnel would have a profound and positive impact on the lives of thousands of needy people. Comfort would provide lifealtering procedures, sight restoration, critical cosmetic surgery, veterinarian support, vaccinations, distribution of eyeglasses, needed pharmaceuticals and dental care...and this was but a snapshot of what transpired on a daily basis.

The ability to provide medical assistance and dental care both ashore and onboard was the primary mission

of the Medical Treatment Facility (MTF). The MTF, under the command of Capt. James J. Ware, DC, USN, consisted of 650 specialists in not only medicine, but also essential skill sets to include translators and facilities construction, courtesy of the Navy Construction Battalions (Seabees). Noteworthy was the number of translators provided by the host nations—a total of 540—whose expertise proved invaluable throughout the mission.

The goal was to provide critical primary health care, training, public health testing, veterinary and environmental health services, bio-medical repair services, and construction and facility repairs. An integral part of this team, 85 nurses who, according to Capt. Ware, "...provided the glue that held everything together." To maintain the nursing level at 85 and to insure continuity, 220 nurses rotated throughout the 4-month deployment. In addition, the Air Force Band of the South (the ambassadors of sound) performed at a variety of venues and fostered a positive community relation's outreach throughout the humanitarian aid mission.

#### Non-Governmental Organizations (NGO's)

The involvement of the NGO community has grown exponentially from mission-to-mission. CP '09 had no less then 15 different NGO's participate including Project Hope, Latter Day Saints Philanthropies, Rotary International, University of San Diego Pre-Dental Society (UCSD Pre Dental Society), to name a few. Dr. Irvin B. Silverstein, DDS, who heads-up the Pre Dental Society, has been a pioneer in expanding the role of NGO's for humanitarian aid missions. During CP '09 UCSD Pre Dental Society rotated 108 students throughout the 4-month deployment.

Project HOPE played a critical role in training 37,000 care providers in various levels of cardiac life support, from infants to adult. In total, 273 NGO volunteers participated in CP '09 with many spending an average of 4 weeks onboard *Comfort*. On a pre-planning basis, it was the largest use of NGO's to date for a humanitarian aid mission, and this number is expected to grow.

The monetary value of the medical care provided by the NGO's during

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CP '09 is not insignificant, valued in excess of \$7 million dollars. The volunteers provide for their own travel, and the only cost to the government is room and board, a bargain by any measure. Their invaluable contributions mandate that future mission planners incorporate the NGO community as an annex to the Operations Plan.

#### DENTAL

Few can argue the dental team epitomized the joint spirit of CP '09. They redefined how soft power/ humanitarian missions can be staffed into the future. The recent 4-month deployment to 7 Caribbean/Latin American nations included dentists/ techs from Navy, Army, Air Force, and United States Public Health Services (USPHS). Dental Department Head and Advisor to UCSD Pre-Dental Society, Capt. David H. Hartzell, DC, said, "Our team of caring professionals included civilians through the Non-Governmental Organization of the University of California San Diego Pre-Dental Society as well as a cadre of international partners from the Dominican Republic, Colombia, Panama, Puerto Rico, Canada, and Antigua. Comfort's dental team demonstrated the power that comes when nations work together to

bring relief to the needy. Our unique dental team of 101 personnel, many rotating through 4 cycles, included providers from 7 nations, 1 NGO and 5 Federal Agencies. We treated over 20,000 patients providing over 40,000 dental procedures with a total dollar value over \$2.7 million in humanitarian care."

#### SUMMARY

When speaking about CP '09 Capt. Ware would say, "It's not about the numbers." But in the final analysis, the numbers would prove the U.S. is still the greatest provider of global medical care in the world, and hundreds of caregivers profoundly influenced the lives of thousands desperately in need of care.

Fleet Surgeon, U. S. Fleet Forces Command, Adm. Alton L. Stocks commented, "Continuing Promise '09 has been a complete success. Many lives will be better for years to come due to the far reaching efforts of all involved. Planning has already begun on Continuing Promise '10 with plans for an Amphibious Assault Ship to provide medical as well as heavy lift engineering capabilities to the Area of Focus."

Marking the importance of the humanitarian aid mission, First Lady Michelle Obama was on hand to welcome home the men and woman onboard *Comfort*, and laud their service when she arrived in Norfolk, VA, at the end of her 4-month tour.

The *Comfort* is expected to conduct future humanitarian aid missions to Central and Latin America and the Caribbean nations every other year. During the alternating years, the Navy, as a key element to its Maritime Strategy, sends its big deck amphibs to the region, last year USS *Boxer* (LHD-4) and USS *Kersarge* (LHD-3) showed the flag while providing medical care to 71,000 patients.

To learn more about Continuing Promise '09, visit the USSSOUTH-COM website: <a href="http://www.southcom.mil">http://www.southcom.mil</a> A report from each host nation visited is available.

Capt. Walter M. Urban, Jr., USNR (Ret.), at the invitation of the U.S. Fleet Forces Command, Fleet Surgeon, was onboard USNS Comfort in El Salvador during Continuous Promise 2009 where he traveled "in country" with medical teams and the Air Force Band. Capt. Urban, a Public Affairs Officer, retired from the Navy in 2000. He served on numerous shore and ship commands including battleship USS Wisconsin (BB-64). Capt. Urban lives in Medford, NJ, and is a Financial Advisor for Morgan Stanley Smith Barney.

#### CONTINUING PROMISE 2009 SERVICES PROVIDED

Several Navy Construction Battalions (Seabees) also completed 13 construction projects ranging from minor renovations of facilities to building new schools.



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## CP '09 IN FOCUS

Secretary of State Hillary Rodham Clinton greets Lt. Patricia Gill in the Cite Soleil section of Portau-Prince, Haiti. Clinton visited Cite Soleil to observe humanitarian and civic assistance being provided to the Haitian people by multinational military service members and non-governmental organization staff embarked aboard the Military Sealift Command hospital ship USNS Comfort (T-AH 20) during Continuing Promise 2009. U.S. Navy Photo By Marcus Suorez/Released





Haitians queue to be screened for medical treatment by physicians embarked aboard the Military Sealift Command hospital ship USNS Comfort (T-AH 20) during a Continuing Promise 2009 medical community service project in Killick, Haiti. U.S. Navy Photo By Mass Communication Specialist 3rd Class Marcus Surorez/Released



First lady Michelle Obama greets Sailors from the Hampton Roads area at Naval Station Norfolk during a homecoming ceremony for Sailors of the Military Sealift Command hospital ship USNS Comfort (T-AH 20), returning from the Continuing Promise 2009 humanitarian mission to South America, Central America, and the Caribbean. U.S. Navy Photo by Mass Communication Specialist 1st Class Michael Tackitt/Releaased



Cmdr. William Scouten, MC, USN, pediatrician, performs a well-baby exam on a Nicaraguan baby. U.S. Navy Photo/Released

Haitian Prime Minister Michele Pierre-Louis visits patients aboard the Military Sealift Command hospital ship USNS Comfort (T-AH 20) during Continuing Promise 2009. U.S. Navy Photo By Tech. Sgt. Bryan G. Stevens/Released



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## Overseas Navy Lab Supports The Maritime Strategy Through Medical Diplomacy

By Cmdr. J.A. "Cappy" Surette, APR

U.S. Navy laboratory in Egypt initially developed in 1940's to protect the health of U.S. service personnel by doing local research and disease surveillance, has evolved into a notable public health presence in the region where it operates. Created as part of the U.S. Typhus Commission to prevent a Typhus epidemic among troops and refugees during World War II, U.S. Navy Medical Research Unit 3 (NAMRU-3)'s early success spurred the Egyptian government to invite the U.S. Navy to continue their partnership on disease research and detection along with Egyptian scientists. The command has since developed into the largest overseas military medical research facility in the world and plays a key U.S. foreign policy role in terms of medical diplomacy.

"NAMRU-3 plays a unique role in the U.S. military," said Vice Adm. Adam Robinson, Navy Surgeon General, during a visit to the command Dec. 10. "In the history of the world, infectious diseases have put more people

down than spears, guns, or bombs," said Robinson. "This is why it is vital we maintain forward-deployed units like NAMRU-3 where there is a persistent focus on force health protection, research and development, and health diplomacy."

While the initial mission of the command was maintaining the health of deployed servicemen, NAMRU-3 has become part of the public health system in Africa and across the Middle East. Today, U.S. naval personnel and scientists collaborate with regional research groups in the fields of disease surveillance, vaccine development, and vector control for tropical diseases. They also train local

Vice Adm. Adam Robinson, Navy Surgeon General meets with Egyptian Minister of Health, Hatem El-Gabali Dec. 10 to thank him for his support of the Navy Medical Research Unit 3 (NAMRU-3) and the Navy's force health mission in Egypt. NAMRU-3 is the largest overseas military medical research facility in the world and plays a key U.S. foreign policy role in terms of medical diplomacy.

Dr. Hanifi Hanifi, Senior Scientist in the Vector Biology Department of U.S. Navy Medical Research Unit 3 (NAMRU-3) shows a culture of sand flies to Vice Adm. Adam Robinson, Navy Surgeon General, in the command's cultivation lab. The insects were collected to study them to identify effective means to safeguard personnel engaged in operations in the Middle East and Africa.



scientists in areas of medical research and dealing with public health challenges.

"Medical research and disease detection is how we partner with nations. Detecting what makes people sick early allows us to develop preventive methods for our own forces which we also share with health officials in countries throughout the region," said Capt. Ken Earhart, Commanding Officer of NAMRU-3. "Our relationsoip is mutually beneficial because we share our findings with the local authorities throughout the region and help them develop their own capability of disease surveillance and treatment."

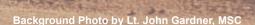
When H1N1 influenza was identified as a potential pandemic infectious disease, personnel from NAMRU-3 worked closely with U.S. Central Command and U.S. Africa Command and the World Health Organization (WHO) to improve surveillance, diagnostic capabilities, and assist with potential outbreak investigations throughout the region. The WHO Eastern Mediterranean Regional Office (EMRO) requested the Navy lab serve as the regional reference center for H1N1 and their work was supported by the Global Emerging Infections and Surveillance Response System (GEIS) and the Centers for Disease Control and Prevention (CDC).

Earhart explained that NAMRU-3 provided focused laboratory assessment, training, emergency supplies, and quality assurance feedback of in theater testing from Afghanistan to Djibouti. "The expeditionary nature of Navy medicine was critical to DOD's global health response to the H1N1 pandemic," said Earhart.

NAMRŪ-3 also worked closely with WHO and CDC to train 30 host nations, including all National Influenza Centers (NICs) throughout the region. These NICs are in country laboratory referral centers, which help to isolate and identify new strains of influenza. NAMRU-3 teams

trained laboratory technicians from each country, provided initial supplies for diagnosis and coordinated distribution of CDC H1N1 kits to each country.

Robinson told personnel from NAMRU-3 during an All Hand's call that the command provides direct support to the Navy's maritime strategy. "NAMRU-3 was a vanguard in establishing credible relationships with partner nation medical authorities which is the foundation of the trust we enjoy today," said Robinson. "The work you do here is a real service to the Navy, the United States, and the world."



JANUARY-FEBRUARY 2010

### **Healthcare Gains Recognition as Bridge to Stability**

theory gaining momentum among counterinsurgency and military medical experts is that the health of a nation's people affects the health of a nation.

While no formal study has confirmed a causal connection, evidence culled from U.S. commanders as well as American allies and adversaries, suggests a correlation between health and stability. With the Defense Department's growing emphasis on stability operations, a better understanding of this relationship could help inform U.S. foreign policy.

"It is increasingly recognized that health is a critical bridge to peace and stability around the globe," said Cmdr. even al Qaida have recognized Army Gen. David Petraeus, David Tarantino, MC, in a presentation on Defense Department stability operations policy. "Health is perhaps the quintessential service among all essential services."

as a stabilizing factor appears in the Geneva Convention of 1949, which requires an occupying force to contribute to its host nation's health care infrastructure. Over the following decades, world superpowers including the United States and China and paramilitary groups like the



Lt. Cmdr. Bill Schalck, assigned to 3rd Battalion, 4th Marine Regiment, examines an Afghan child during a combined medical engagement in Now Zad, Afghanistan. Schalck provides medical care for anyone who comes to the engagement.

Irish Republican Army and the strategic role health plays, officials said.

In modern day counterinsurgency conflicts, where gaining support of the people is the prime objective, one of Early recognition of health the crucial aspects is to provide the population essential services that improve quality of life, said retired Army Col. Pete Mansoor, the founding director of the U.S. Army/ Marine Corps Counterinsurgency Center at Fort Leavenworth, Kan.

Ohio State University, served

as the executive officer to then commander of Multinational Forces Iraq. He assisted senior health stability and in the strategic planning for cluding the troop surge that is ment's International Health largely credited with increasing Iraq's stability.

"Medical care is among the most sought after resource in this regard, as people worldwide appreciate good health over most other aspects of the human condition," he said in an e-mail today. "In coun-Mansoor, a professor at the terinsurgency operations, doctors and other health

care professionals can be as important as soldiers."

Dr. Lynn Lawry, the humanitarian assistance spethe U.S. war effort in Iraq, in- cialist in the Defense Depart-Division, characterized health care as a "moderator" of stability.

"If you think about it, health is a basic need like food, shelter, clean water, health care access, being able to get your kids help," she said in an interview last month. "What the anecdotal evidence points to is health is really stability."

Lawry described two phenomena that suggest a link: the correlation between infant mortality rates and stability, and the incidence of mortar attacks on an area's health care nection, Lawry said. infrastructure.

As the stability of an area decreases, Lynn said, there is a dramatic increase in infant mortality, which is defined as the number of deaths of children one year or younger per 1,000 live births. Conversely, improved stability is met with in Albania where there was a drop in infant mortality.

"That's a disproportionate marker," Lawry said of infant death rates. "It goes way up, as opposed to some of the other markers. So you can look at infant mortality, and that is directly related to having health care services as a marker for stability."

Anecdotal evidence from the battlefield also suggests that health care can create stability. Military units in the field that are being shelled with artillery fire have found that medical care has proven to be a defensive measure in some instances, Lawry said.

"They go out into the community and set up some type of medical programming in the surrounding area," she said, noting that such facilities often meet the needs of comto treat women and immunize children. "Then, all of a sudden, the mortars stop."

Evidence from conflict zones like the Gaza Strip, where he added.

Hamas' first social priority has lowed by education, and data from the Kosovo War in the late 1990s also suggest a con-

"If you look at Gaza where there was a huge amount of uprisings and problems, they went in and put in a health clinic basically on every corner and stability ensued," she said. "The same thing happened in the opposite way lots of health care services. As health care started dwindling, so did stability."

Lt. Cdr. William J. Hughes, MSC, the program director for contingency planning at the International Health Division, said insurgent groups have long recognized the value of health care in winning popular support.

"Michael Collins of the IRA wrote in his doctrine that if you break down the state and you want to view yourself, the insurgency, as the legitimate form of government, then health care is [critical]," he said in an interview last week.

Hughes noted that after the earthquake in Kashmir, the disputed region between India and Pakistan, the first medical unit to munities lacking infrastructure respond was one with direct Defense Secretary Robert M. links to al Qaida. "Now there's an adversary of ours who's learned what health can do to an environment,"

Hughes noted that counbeen to provide health care, fol- tries like Venezuela and Cuba send their doctors around the globe to perform health care, and that China recently converted one of its ships into a floating hospital.

> The move by China is similar to efforts by two American vessels, the USNS Mercy and USNS Comfort, which travel to impoverished or disaster-stricken countries to provide medical care.

Such "soft power" operations, which emphasize nonmilitary government efforts, have gained visibility with the Defense Department this year, reaffirming a policy directive that puts stability operations on equal footing with capacity to provide health and major combat operations.

"This directive said that stability operations were on par with major combat operations," Hughes said of directive 3000.05. "Now that's groundbreaking. That's transformational because now when you do that, you say you have to train, equip, and fund people to do these kinds of operations."

Hughes said critics expressed concern that the directive, created in 2005, would place the military at the front of America's image abroad, echoing concern that Gates has voiced about U.S. foreign policy's "creeping militarization." But Hughes said medical workers in uniform are unique in that they

often are viewed as "neutral players," with an interest primarily in providing care.

"We have this Hippocratic Oath. It's in our blood to want to care and do good things," he said. "You can provide [health care] and you're not necessarily going to be viewed as an agent of your nation's policies."

Further, Hughes emphasized the department's International Health Division, which aids the combatant commands in coordinating and carrying out health aspects of the department's stability operations, is concerned primarily with helping partner nations build their own maintain stability.

"[Sometimes] we work with the host nation so we can work ourselves out of a job," he said of the division's mission to train its allied counterparts. "That's what we want to do with stability ops-we don't want to stay."

Lawry, Hughes' colleague at the division, underscored no formal evidence-based assessment has been conducted that establishes the link between health and stability.

"But you can say, anecdotally, that's what it looks like," she said. "It deserves a study."

By John J. Kruzel, American Forces Press Service

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### Spotlight on **Naval Health Research Center**

Naval Health Research Center (NHRC) was initially established in June 1959 as the U.S. Navy Medical Neuropsychiatric Research Unit (NPRU). Designated as the Navy's primary research capability in the areas of psychiatry and neurology, NPRU's mission, defined by the Secretary of the Navy, was "to conduct research in the area of neuropsychiatry as it applies to the naval service."

a variety of potential research populations including recruits and patients, Sailors and Marines, and all Naval platform types, Point Loma in San Diego, CA, was an ideal location. It was also near the research arms of the then Bureau of Naval Personnel and the Naval Electronics Laboratory, currently named Space and Naval Warfare Systems Command (SPAWAR), San Diego.

The first Officer in Charge assumed command on Aug. 1, 1959. The Bureau of Medicine and Surgery approved the first formal research work unit in Feb. 1960 launching the start of NPRU's longitudinal studies. Scientific and technical staffs were assembled within the constraints of both space and budget. In the spring of 1960, the Naval Hospital, San Diego, agreed to provide space for NPRU's proposed research efforts in psychophysiology and neurophysiology, referred to as the "Sleep Lab."

Eventually nine other WWII-era buildings were obtained, along with spaces at the Naval Training Center, buildings on the "seaside" area of Naval Base Point Loma, spaces at the Marine Corps Mountain Warfare Training Center, and the more recent construction of human performance laboratory near the Third Fleet headquarters. Due to its close proximity to Today, NHRC is housed in 17 buildings overlooking the San Diego Bay.

> In 1974, by authority of the Chief of Naval Operations, NPRU was redesignated as the Naval Health Research Center with the mission "to study medical and psychological aspects of health and performance among naval service personnel." NHRC celebrated its 50th anniversary in Jul. 2009.

In 50 years, NHRC has grown to become the Navy's preeminent biomedical R&D activity site for meeting the expeditionary operational medicine needs of the Navy and the Marine Corps, as well as Army and Air Force personnel. With its strategic location within the fleet concentration area of San Diego, NHRC is still uniquely positioned to respond to the biomedical research requirements of the expeditionary forces of all of the services and special operations communities.

#### NHRC CAPABILITIES AND **CURRENT RESEARCH**

#### Medical Modeling, Simulation and Mission Support

The Medical Modeling, Simulation and Mission Support department conducts analyses and develops models to provide medical decision support to operational commanders, medical logisticians and field medical personnel as they seek to determine the resources required to support combat and peacetime deployments. Modeling & Simulation (M&S) works with medical planners, providers, and logisticians to develop projects that assist in the field medical services planning, systems analysis, operational risk assessment, and to determine the best course of action for treating a particular patient stream using the available resources.

The Expeditionary Medical Encounter Database (EMED, formerly called the Navy/Marine Corps Combat Trauma Registry) was designed primarily to provide highly detailed battle injury and disease and non-battle injury data from far forward Marine Corps medical assets in theater (Levels 1 and 2) for the purposes of enabling M&S capability and focused studies of interest by operational forces. The data are integrated with Level 3 (field

hospital, Combat Army Surgical Hospital), and Levels 4 and 5 to form a complete picture of operational casualties and their outcomes stateside.

These data have enabled focused studies on body wound mapping related to exposures and personal protective equipment (PPE) usage, specific medications and procedures at far forward locations, and the estimation of how injury severity relates to mortality as a function of evacuation efficiencies. The EMED team has received over 15 inquiries for rapid analyses in support of ongoing operations during the past two years. Recently, the EMED team began working with the Joint Trauma and Prevention of Injury in Combat (JTAPIC) program to enable forensic analyses of blast (Improvised Explosive Device, Rocket Propelled Grenade) events involving combat vehicles. These first-of-a-kind analyses have resulted in numerous on-the-fly changes to combat vehicular armoring both during production and in the field, along with guidance on the use of PPE within the vehicles, and tactical guidance to field commanders.

The Modeling and Simulation team has made significant impact by designing medical decision support tools that improve clinical

capability and streamlining the patient treatment combat, humanitarian, and peacekeeping missions. M&S products are designed to assist expeditionary operational commanders, medical logisticians, and field medical personnel in the Navy, Marine Corps, and the Air Force. Over the past 3 years, this team has conducted over 20 equipment set optimization reviews, and supported the development/modernization

of several new expeditionary medical treatment facility resources required to support concepts (e.g., Expeditionary Resuscitative System Shipboard (ERSS), Marine Corps Special Operations Command medical capability package, Navy Expeditionary Combatant Command medical capability package, Air Force Special Operations Command medical capability package). The M&S team works to:

> •Forecast the types and numbers of casualties expect

ed to occur in different types of contingency environments.

- Estimate the supplies required to treat a particular patient stream at both ground and shipboard levels of care and functional areas.
- •Model the delivery and consumption of a medical supply inventory over a series of time intervals.
- Model patient arrivals, treatment, and outcomes as they flow from the point of injury through a network of care facilities. Recent work

has begun to support expeditionary "soft power" missions of humanitarian support and disaster relief.

#### Warfighter Performance

The Warfighter Performance Department conducts research related to the measurement, maintenance, restoration, enhancement, and modeling of human performance in military operational environments. Emphasis is on the measurement and understanding of the



NHRC's Behavorial Sciences Continuum.

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processes that lead to physical and mental performance degradation, development of countermeasures to maintain or enhance performance, and the development of standards which allows safe and effective performance of Navy and Marine Corps personnel. Areas of study include:

- Environmental Stress Studies
- •Physical Stress, Load and **Impact**
- •Physical Fitness and Weight Standards
- •Cognitive Neuroscience of Stress Performance
- •Computer Assisted Rehabilitation Environment (CAREN)

One current area of interest involves stress inoculation provided by intense combat readiness training. The Infantry Immersive Trainer (IIT) at function of occupational and Camp Pendleton represents a revolutionary step in the training of tactics, techniques and procedures (TTP) to deploying Marines. Marines are trained on a variety of scenarios and tasks in a highly realistic setting that employs sights, smells, and sounds of an Iraqi village, complete with role players, pyrotechnics, and simunitions. The IIT is so highly regarded that all DoD components are now considering building multiple extending research findings IIT facilities. Using stress physiology data, NHRC has now demonstrated that IIT training produces a stress inoculation effect, that this effect likely extends into livefire training, and may extend into deployment to combat areas. Thus, in addition to providing outstanding training in TTP, the IIT may be providing greater cognitive

resistance to the deleterious effects of combat stress on mental health. NHRC continues to examine stress inoculation and plans to follow selected Marine Corps units into theater to conduct further measures.

#### BEHAVIORAL SCIENCE AND **EPIDEMIOLOGY**

The Behavioral Science and Epidemiology department supports personnel health and readiness through research and development in the areas of musculskeletal injury prevention; tobacco, drug and alcohol abuse interventions; and studies in the areas such as stress, mental health, suicide, and domestic violence. Current epidemiological studies address cancer and other diseases as a demographic factors. Focus areas include:

- Behavioral Trends That Impact Readiness
- Focused Intervention
- •Behavioral Needs Assessment Survey
- Posttraumatic Stress Disorder (PTSD)/Traumatic Brian Injury (TBI) Studies
- Career-Span Health and Wellness Studies

The team has a history of into behavioral intervention and modification strategies. For example, to address the stigma associated with mental health issues and barriers to seeking care, NHRC developed the story-line for a brief public education video targeted at Marines and ground Sailors. The video portrays a Marine combat veteran and his struggles with combat stress

reactions while on leave with his family at an amusement park. Using congressional support, NHRC teamed with Science Applications International Corporation (SAIC) and with Strategic Operations/Stu Segall Productions to produce the video, titled "Echoes." The Vice Chief of Naval Operations has directed that "Echoes" be widely distributed, and it is now viewable at many Navy Weboites, including the Navy's Lifelines Website.

Another highly successful behavior modification video, titled "Good to Go," is focused on preventing drug use among Marines. It was developed after NHRC reviewed the Marine Corps' anti-drug awareness program. This video is now part of the USMC Zero Tolerance program material distributed to the Corps. These products represent just a few of the many stress and behaviorrelated initiatives at the Naval Health Research Center.

#### Deployment Health

The Deployment Health Research department's mission includes conducting epidemiological studies to investigate the longitudinal health experience of previously deployed military personnel, and the development and evaluation of appropriate health surveillance strategies. Research includes studies of symptoms, hospitalizations, reproductive outcomes, mortality, and other health outcomes among DOD beneficiary populations, both military and civilian. Focus areas include:

•Millennium Cohort Study

- •Birth and Infant Health Registry
- •Recruit Assessment Pro-
- •Post-Vaccination Epidemiological Studies

In response to concerns about the health effects of deployments following the 1991 Gulf War, the U.S. Congress and the U.S. Institute of Medicine recommended that the DoD conduct prospective epidemiological research to evaluate the impact of military exposures, including deployment, on long-term health outcomes.

The Millennium Cohort Study, the largest prospective health study in the military with more than 140,000 participants at present, is meeting this critical need. Although the original designers of the Millennium Cohort Study could not foresee the post-2001 military conflicts, the project is perfectly positioned to address health outcomes related to these operations. Deployment of more than 40 percent of Millennium Cohort participants in support of the wars in Iraq and Afghanistan will enable investigators to prospectively evaluate detailed data from before, during, and long after these deployments. Current areas of analyses include post-traumatic stress disorder, depression, alcohol misuse, respiratory illnesses, and traumatic brain injury.

The Millennium Cohort Study is poised to provide critical information toward understanding the long-term health of future generations of military members, thus contributing to force health protection, a DoD priority.

The study is scheduled to remain underway for 22 years, but may now be extended due of the Centers for Disease to recognition of its value to DoD policy makers. Within the past year, the study team has published findings in the Journal of the American Medical Association, British Medical Journal, The American Journal Respiratory Disease of Epidemiology, and other top-ranked scientific publications.

#### HIV/AIDS Prevention Program

The HIV/AIDS Prevention Program's mission is to reduce the incidence of HIV/AIDS among uniformed personnel in select African nations and beyond. DHAPP assists in development and implementation of military-specific HIV prevention programs and integration with other U.S. Government, nongovernmental organizations, and United Nations programs. As Executive Agent, the DHAPP Management Office at NHRC provides day-to-day direction of the DoD effort to foreign militaries in over 80 countries worldwide. It prepares and delivers periodic reports and provides the results of assessments to each country's Deputy Assistant Secretary of Defense.

DHAPP implements the military-to-military portion of the President's Emergency Plan for AIDS Relief (PEPFAR), and executes over \$45 million annually. Recently, Gen. Ward, AF-RICOM commander, listed the DHAPP program as one of his top three security cooperation engagement activities. In a letter last August to the Assistant Secretary of Defense for Health Affairs.

Dr. J. L. Gerberding, director of the Public Health Service Control, congratulated the DHAPP program and noted that CDC was proud to partner with DoD on the initiative.

The Respiratory Disease Research department performs research and conducts active, laboratory-based surveillance for infectious diseases that affect military personnel or their dependents, with emphasis on respiratory pathogens. Leveraging these surveillance studies, the department is able to address the safety and efficacy of drugs, vaccines, and new diagnostics as they affect operational health concerns.

The Respiratory Disease department serves as the Navy the armed forces. NHRC has hub for the Department of Defense Global Emerging Infections Disease Surveillance and Response System (GEIS). Focus areas include:

- •Global Emerging Infections System (GEIS)—Surveillance of all DoD Recruit Training Sites
- Advanced Diagnostic Technologies Development/ Testing
  - Outbreak Investigations
- Adenovirus Vaccine Clinical Trial
- •A/H1N1 Confirmatory Laboratory
- •Smallpox Vaccine Safety Study

NHRC's Respiratory Disease Research Laboratory detected the first U.S. cases of the April 2009 influenza A/ H1N1 virus, which resulted in significant local, national and international attention. NHRC's Respiratory Diseases Research Laboratory was established in the late 1990s to monitor adenoviruses at the recruit training sites of continuously monitored all the DoD sites (and the Coast Guard recruit training center) since that time for adenoviruses and other respiratory pathogens. In response to avian influenza (H5N1) concerns, the program was expanded in 2004 by DoD-GEIS to support greater pandemic surveillance. NHRC augmented existing febrile respiratory illness surveillance programs in military recruit trainees and ship-board populations and expanded into military dependent (family member) populations in San Diego. Also, in a collaborative effort with the CDC, the team developed a surveillance program on the Southern California-Mexico border. The NHRC laboratory is now considered a key surveillance and diagnostics center for San Diego's fleet concentration area, and for the entire Southwestern United States.

By Karl F. Van Orden, Ph.D., Scientific Director, Naval Health Research Center



NHRC technicians training for BSL-3 laboratory work.

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### NMMPT&E Command Continues to Deliver the Fleet 'The Right People At The Right Time With The Right Skills'

Tavy Medicine Manpower, Personnel Training and Education Command (NMMPT&E) is a Navy Medicine echelon four command headquartered at the National Naval Medical Center (NNMC) in Bethesda, Md., with an enterprise that literally spans from coast to

As a subordinate command of Navy Medicine Support Command, NMMPT&E's mission is to deliver the right number of personnel at the right time with the right skills, at the best value to support Navy Medicine's mul- Ill.; Navy Operational Meditiple missions.

novative medical organization that drives total workforce management, and encourages and supports lifelong learning at all of our learning centers," said Capt. R. Barton Welbourn, D.D.S., DC, NMMPT&E commanding officer. "We are the hub for

all of Navy Medicine's various medical and operational medical support training. Our programs range from basic medical and dental fundamentals, to more advanced training such as radiology, combat surgery, and dental prosthetics. But, our facilities aren't limited to just training. We wear different hats."

NMMPT&E is comprised of five subordinate commands – the Naval School of Health Sciences (NSHS) Portsmouth, Va.; NSHS San Diego; Naval Hospital Corps School (NHCS) Great Lakes, cal Institute (NOMI) Pensa-"We do this through an in- cola, Fla.; and Navy Medicine rodiagnostic Technician, and Training Center (NMTC), Fort Sam Houston, Texas.

#### **NSHS Portsmouth**

NSHS Portsmouth is located on the Naval Medical Center, Portsmouth, Va., campus and was established in 1902 as the Navy's first Hospital Corps School. The school was originally part of the former Norfolk Naval Hospital.

The command's enlisted training programs include the Advanced Medical Laboratory NSHS SAN DIEGO Technician, Advanced Radiography Technician, Surgical Technician, Pharmacy Technician, Urology Technician, Hemodialysis Apheresis Technician, Surface Force Medical Indoctrination Course, Surface Force Independent Duty Corpsman refresher course, Psychiatric Technician Phase I and Phase II, Occupational Therapy Assistant Phase II, Nuclear Medicine Technician Phase I and II, Electroneu-Physical Therapy Technician Phase II. Officer training courses include Nurse Corps Anesthesia Phase II.

"NSHS Portsmouth holds institutional accreditation from the Commission of the Council in Occupational Education and individual

programmatic accreditation from a variety of national associations specific to particular training programs," Welbourn said.

NSHS San Diego's mission is to educate, train, and develop medical personnel in support of force readiness. Its vision is to be the gateway for premier medical education, training, development, and opportunity for lifelong learning. NSHS San Diego has three training sites in California and a fourth remote site at Sheppard Air Force Base (AFB), Texas.

The NSHS San Diego main campus is located on the Naval Medical Center, San Diego, campus at Balboa. Training programs conducted at the Balboa location include the Imaging and Advanced Imaging Programs, Advanced Laboratory Program, Cardiovascular Technician Program, Nurse Anesthesia Program,

Otolaryngology Technician Program, Physician Assistant Program, Physical Therapy, Preventive Medicine Technician Program, Respiratory Therapy Technician, Surgical Technician Program, and the Human Patient Simulator (HPS) Laboratory. The **Expanded Functions Dental** Assistant Program is at 32nd Street Naval Base, San Diego, and NSHS's Naval Drug and Alcohol Counselor School is located at Submarine Base Point Loma, Calif.

Programs conducted at Sheppard AFB include the Basic and Advanced Biomedical Equipment Technician Programs, Dental Prosthetic Laboratory Technician, Advanced Prosthetic Laboratory Technician and Medical Facilities Management.

#### NHCS GREAT LAKES

Established in 1917, the mission of NHCS Great Lakes is to educate and train enlisted Sailors to perform as apprentice-level Hospital Corpsmen. The vision is to retain its status as the premier Military Healthcare Training Institution. With 195 enlisted and commissioned Sailors, and R. E. Mitchell Center for Re-16 civilian employees, it is the Navy's largest "A" school.

students a year at NHCS Great Lakes in the Hospital Corpsman (HM) and Hospital military, from every major

Corpsman Dental Assistant (HMDA) programs," Welbourn explained.

Students enrolled in the HM program learn nursing skills such as taking vital signs, medication administration, phlebotomy, IV insertion, and wound management. They also learn emergency care skills Medicine Institute and the such as CPR, airway management, patient assessment, treating bleeding, shock, triage, and treating musculoskeletal, head and spine injuries.

Students enrolled in the HMDA program learn dental fundamentals, clerical duties, infection control, radiology, preventive dentistry, operative dentistry and clinical rotation.

#### NOMI PENSACOLA

NOMI is responsible for six detachments and nine training centers in 46 facilities across the U.S. More than 600 personnel support instructional programs within aviation, surface and undersea warfare, expeditionary forces, and special operations. NOMI also has oversight of the DoD's only multi-service ongoing follow-up medical observation of American repatriates at the patriated Prisoners of War.

"The Mitchell Center has "We train more than 4,000 the distinction of evaluating repatriates, and their spouses, from every branch of the U.S. conflict since WWII," said Welbourn.

NOMI's programs include: Naval Survival Training Institute, Naval Expeditionary Medical Training Institute, Naval Aerospace Medical Institute, Naval Undersea Medical Institute, Surface Warfare Naval Special Operations Medical Institute.

NOMI also hosts two special programs at its headquarters: Tactical Combat Casualty Care (TCCC) and the Naval Operational Medical Lessons Learned (NOMLL) Center.

#### NMTC FORT SAM HOUSTON

Originally designated as NSHS, San Antonio Detachment, NMTC was commissioned Feb. 29, 2008, at Ft. Sam Houston and is the Navy command element reporting directly to NMMPT&E. NMTC will support interservice education and training as the Navy service-element command for the Tri-service Medical Education Training Campus (METC) when completed.

The NMTC mission is to provide leadership, professional development, and operational and administrative support to assigned naval personnel, and to provide functional support to METC and other inter-service training programs in the San Anto-

nio area. Its vision is to create an environment that solidly anchors Sailors in the Navy culture, Welbourn said.

"NMTC may be a part of and support the METC collaborative function, but we grow and develop Navy Hospital Corpsmen," he stressed. "Our core values are based on that mission and tradition, and that will never go away."

METC is scheduled to open in phases between 2010 and 2011 and will be the largest consolidation of enlisted service training in DoD history. NMMPTE commands moving to Ft. Sam Houston as part of METC include NHCS Great Lakes, and both NSHS San Diego and Portsmouth, including the majority of their detachments. Once the merger is complete, METC will be the world's largest military medical education and training institution. The first Navy students are scheduled to begin training in the new facilities in June 2010.

By MC1(SW) Arthur N. De La Cruz

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#### SAVE THE DATE



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#### CONTACTS

#### CSDACCOSC

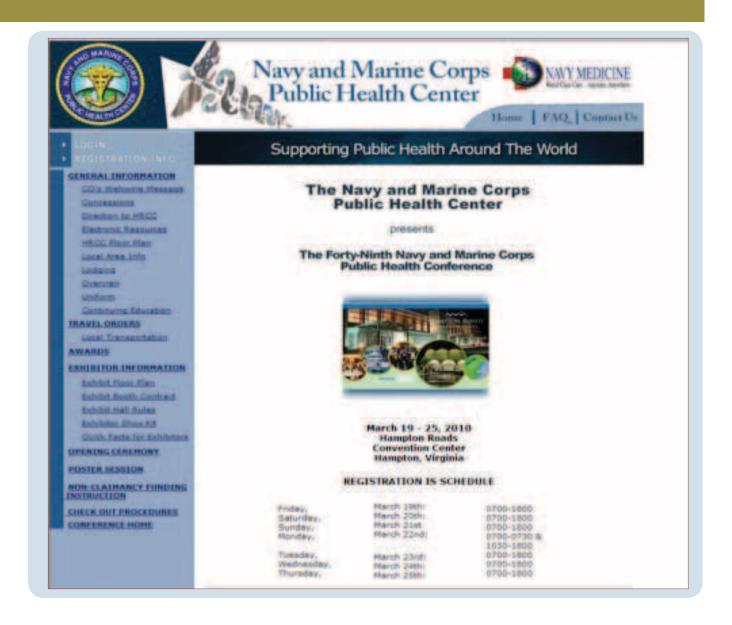
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#### CALL FOR PAPERS

#### SUBMISSIONS DEADLINE: JANUARY 15, 2010.

TOPICS SHOULD BE RELEVANT TO PSYCHOLOGICAL HEALTH AND WELLNESS IN RELATION TO COMBAT AND OPERATIONAL STRESS CONTROL FOR MILITARY MEMBERS AND THEIR FAMILIES.



SAN DIEGO (Oct. 23, 2009)- LA Lakers, (left to right) Lamar Odom, Kobe Bryant, and Derek Fisher visit with Marine Sgt. Cassandra Becker and her mom at Naval Medical Center San Diego (NMCSD). The Lakers made a surprise visit to NMCSD during which players and coaches visited patients, signed autographs, and posed for pictures with more than 150 patients and staff. The Lakers are in San Diego for a preseason exhibition game against the Denver Nuggets. U.S. Navy Photo by Mass Communication Specialist 1st Class Anastasia Puscian/ HIPAA Complete



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#### **BOOK REVIEW**

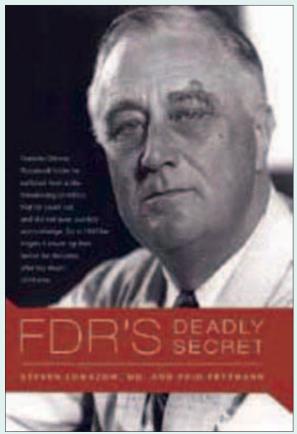
*FDR's Deadly Secret*, by Steven Lomazow, MD, and Eric Fettman. Public Affairs Press, January 2010. 296 pages. ISBN: 978-1-58648-744-7

he authors of *FDR's Deadly* Secret offer the reader a good story. The book is an easy read and accessible for the general public. The subject is extensively researched, with excellent references, footnotes, and a wonderful bibliography. The book is said to present "a profound historical revelation" about Franklin Delano Roosevelt's health, revealing material that many of FDR's historians have missed. However, at the end of the day we are left with speculations and theories but little new factual evidence.

The basic premise of the text is that FDR died of metastatic melanoma to the brain and gastrointestinal tract. This is not a new idea; note 850,000 hits on Google. The problem that every other historian and writer of Roosevelt's health has run into is that there are rare medical records, no biopsies showing cancer and an autopsy was never done. All one can do is try to build a good story.

The book is as much about FDR as about his personal physician Dr. Ross McIntire, who was Navy Surgeon General (1938-1946), as it is about the President. In an early section of the book, the authors praise McIntire for his care, but later accuse him of "willfully" deceiving the press and the entire nation" about the state of FDR's health. I would argue that McIntire honored the physician-patient relationship. It was his patient's responsibility to tell the nation of his problems not his.

In another instance, the authors state that McIntire was "caught asleep at the wheel." A Laboratory slip (on page



81) shows a hemoglobin of 4.5 grams, a sign of a severe blood loss but the authors fail to explain the hematocrit of 31 percent! This is an impossibility, one of these numbers is wrong. Which one? FDR had known hypertensive cardiovascular disease. This disease affects not only the brain and heart but the kidneys. FDR probably had an element of chronic kidney failure and anemia which is quite common with this condition. In the 1940s there was no treatment for it. There was a question of a gastrointestinal bleeding which McIntire attributed to hemorrhoids. If the hematocrit was 31 percent and the hemoglobin an error then treatment would be iron administered either orally or by injection.

There is no question that Roosevelt was a sick man as photographs from 1940 to 1944 reveal, but was he actively dying? Dr. Lomazow, a neurologist, did note two new physical findings. Roosevelt had some type of seizure disorder (petit mal?) and a visual field defect. The latter finding is nicely illustrated from a speech by Roosevelt. Did these problems cause intellectual impairment? That case is not proven and in fact the authors point out that FDR's ability to correct for his visual field defect seems to confirm just the opposite.

The book leaves us with more questions than it answers. There are lots of issues surrounding serious illness of any president. For example, what is the responsibility of the president's physician

to the general public even if he is the Surgeon General? I wish the authors had concentrated on their main premise rather than trying to give answers to all the various issues. These concerns aside, the book is still a good read for the general public.

Reviewed by Dr. Paul Berman. Dr. Berman is a noted medical historian and a member of the Society for the History of Navy Medicine.

The review appears in THE GROG RATION, January-February 2010 issue and is reprinted with permission.

#### CMDR. SAM BOOKATZ, MSC, USNR, NAVY ARTIST IN WAR



Commander Samuel Bookatz paints a mural from his Lincoln Bedroom White House Studio. Circa 1942.

Ancient Romans preferred to avoid the allusion to death. In referring to someone who had recently died, they would use the Latin term "vixerat," meaning "He has lived." Samuel Bookatz, a retired Medical Service Corps Officer and noted artist, died on November 16 at his home in Georgetown, DC. He was 99. With his death we are reminded that he had lived a meaningful existence. In a career that spanned more than 80 years, he was always a prolific and innovative painter.

His art, which includes oils, acrylics, frescoes, contés, pastels, sketches, lithographs, drawings, castings, pottery, painted glass, and sculpture, can be found in the collections of noted galleries and public buildings throughout the country—the Corcoran, Phillips, Hirschhorn, Smithsonian, Cleveland Museum of Art, Rochester Museum of Art, Library of Congress, Franklin D. Roosevelt Memorial Library, the White House, and in many commercial buildings and houses of worship.

He graduated from the Cleveland School of Art, studied under the Russian painter Alexander Iacovleff (1887-1938), then learned anatomy at Harvard Medical School, not to practice the healing art but to comprehend

what lay hidden beneath the veneer of human skin.

Winning the prestigious William Page Award and receiving a Prix de Rome mention enabled him to travel abroad. From 1937 to 1939 he painted and traveled—vagabond and observer. All Europe was his studio—Rome, the sun-drenched Adriat-

ic coast of Yugoslavia, Budapest on the Danube, post-civil war Madrid, and, of course, Paris's Rive Gauche.

If it was a heady experience for a maturing young man, it could be dangerous as well. As he once sat in a window alcove to sketch Mussolini delivering a fascist diatribe, the police arrested him for having dishonored their leader. One did not sit in the Duce's presence, they reminded him.

As Hitler intimidated his way toward conquest, Bookatz himself sampled what was to come. When he intervened on behalf of a Jewish child refugee traveling to Paris from Yugoslavia, Nazi guards threw him off the train for his insolence. It might have been worse, he pointed out years later.

There were other incidents, other jails. French authorities detained him as a suspected saboteur the night a ship mysteriously burned at a Marseilles pier. Bookatz bribed his way out of that scrape and departed France virtually penniless.

If court painter had been an American institution, Samuel Bookatz would have held that title in the Roosevelt White House. Peculiar circumstances put Samuel in the Navy and FDR was a Navy aficionado. After returning from Europe in 1941, Bookatz was commissioned to do a portrait of David Dietz, a famous author, science editor, and an advisor to President Roosevelt. At that time Bookatz realized he was going to be drafted into service. "Dietz told me he was going to Washington



The artist and former Nurse Corps Director, Rear Adm. Mariann Stratton, standing in front of a portrait of CAPT Nellie Jane DeWitt, circa 1990.

the next day to see the President," Bookatz recalled in a 1984 interview. "'How would you like to be in the Navy?' Dietz asked me and I said that would be great." Dietz returned a few days later and told Bookatz that he was now in the Navy. Strange as it may seem today, the president sought a good artist to document the Navy's contributions to the war effort.

As a Lieutenant (junior grade) in the Hospital Corps, Samuel Bookatz's first duty station was the White House. There he took up residence in his new studio—the Lincoln Bedroom. "It was the most fabulous thing you can imagine," he recalled. "I had to paint in the corner of the room to get the best light while Mrs. Roosevelt wrote her newspaper column, 'My Day' in an adjoining room.

Often, I would hear her old typewriter clacking away and it would disturb me but, of course, I couldn't say anything. And when I was through for the day, I washed my brushes in the White House sinks, right near where the President's meals were being prepared." And while Bookatz painted in their midst, Roosevelt and his advisors made the decisions and planned the grand strategy for final victory over the Axis. Bookatz painted and sketched the President and the First Lady and began his portrait of the President's physician VADM Ross T. McIntire. All of these works now hang at the National Naval Medical Center Bethesda, MD.

Throughout the war, Bookatz documented the Navy Medical Department in his paintings. Among his wartime oeuvre are four murals depicting the Hospital Corps afloat and ashore. Painted in 1942 for the Hospital Corps School and Naval Hospital Portsmouth, VA, these murals—named respectively "Ambulance Plane," "Attack on Ship," "Battalion Aid Station," and "Fallen Comrade"—are among fifteen murals Bookatz painted during World War II.



Hospital Corps School, Portsmouth, VA. In 1942, Bookatz was commissioned by the Naval Hospital Corps School in Portsmouth, VA, to paint four murals depicting the Hospital Corps afloat and ashore. These murals—named respectively "Ambulance Plane," "Attack on Ship," "Battalion Aid Station," and "Fallen Comrade"—are among fifteen Navy medical murals Bookatz painted during World War II.

FDR passed away just as the European war drew to a close. Samuel Bookatz left Washington for his new assignment in plastic surgery at Naval Hospital Oakland, CA. The Navy needed his skills in anatomy to help rebuild the mutilated faces of the wounded returning from the Pacific Theater. "I worked with some of the greatest surgeons in the world. I cut cartilage for facial reconstruction right in the operating room. I would also do sketches of the patients as the operation proceeded."

The Navy recalled him to duty during the Korean War and eventually he retired as a commander. His uncommon chapter as chronicler of war had ended. Yet even when confronted with the dilemma of war's compatibility with art, he pointed to one of modern history's greatest combat artists, Francisco Goya. "Goya's canvases run with blood, yet there's beauty there also. Look at Picasso's 'Guernica'," he once

said. "What is depicted on that canvas is horrifying, yet beautiful at the same time. One can find beauty in ugliness." Finding beauty in everything and expressing it using everything at his disposal, was what Samuel Bookatz was all about.

Samuel Bookatz is survived by his wife, Helen S. Bookatz, loving family and friends, and thousands of works of art. He will be interred at Arlington National Cemetery with full military honors.

By Jan K. Herman. Mr. Herman is the Historian of the Navy Medical Department (MED00H), and Director of the Benjamin Rush Education and Conference Center at BUMED in Washington, DC. This obituary is based on the article appearing in THE GROG RATION, Jan-Feb 2010 issue.

## Navy Medicine 1970

**Equippped for Action** 



Hospital Corpsman 1st Class Craig Jimerfield readies for patrol. The hospital corpsman served as a medical advisor for amphibious Task force 211 in Dong Tam, South Vietnam.

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